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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Dayton, Ohio

NCR Docket No. 9595.00

Application of

Scott Hartop

Serial No. 10/007,464

Filed: December 5, 2001

For: **STREAMING OF DATA**

APR 04 2002

Group Art Unit: 2152

Examiner: **Unknown**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**PETITION PURSUANT TO 37 C.F.R. § 1.47(b)**

Sir:

The Petitioner authorizes the Commissioner to charge NCR Deposit Account No. 14-0225 for the petition fee of \$130.00 set forth in 37 C.F.R. § 1.17(h). Please charge any deficiency or credit any overpayment of fees to NCR Deposit Account No. 14-0225.

The Petitioner states that the last known address of the non-signing inventor, Scott Hartop is as follows:

Scott Hartop  
1 Hayes Crescent  
London NW11 0DG

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APR 17 2002

**OFFICE OF PETITIONS**

Enclosed with this Petition are the following items:

- (1) Declaration of Michael Chan;
- (2) Declaration of Christine Sheppard;
- (3) Exhibit A- Copy of Invention Disclosure;
- (4) Exhibit B - Copy of letter sent by Royal Mail Recorded Delivery; and
- (5) Exhibit C - Copy of Employment Agreement.

04/16/2002 AOSMAN1 00000024 140225 10007464

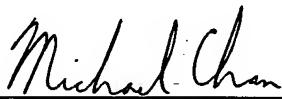
02 FC:122

130.00 CH

NCR Corporation has sufficient proprietary interest in the above-identified application as evidenced by the Employment Agreement contained in Exhibit C in the Declaration of Christine Sheppard submitted herewith. Action under 37 C.F.R. Section 1.47(b) is necessary to preserve the rights of the parties or to prevent irreparable damage.

A new "Combined Declaration and Power of Attorney" executed by a representative of NCR Corporation who has sufficient proprietary interest in the above-identified application is also submitted herewith accompanied with its copy of "Notice to File Missing Parts".

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Michael Chan", is written over a horizontal line.

Michael Chan  
Reg. No. 33,663  
Attorney for Applicant(s)

NCR Corporation, Law Department, WHQ5E  
1700 S. Patterson Blvd., Dayton, OH 45479-0001  
Tel. No. 937-445-4956/Fax No. 937-445-3733

APR 04 2002



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**DECLARATION OF CHRISTINE SHEPPARD**

Sir:

I, Christine Sheppard, being duly sworn, do hereby declare and state:

1. I am employed in the Intellectual Property Section of the Law Department of NCR Corporation. I am located in the London (United Kingdom) office of NCR Corporation.

2. I work with Michael Chan, Senior Attorney in the Intellectual Property Section of the Law Department of NCR Corporation, who is located in the Dayton offices of the Intellectual Property Section of the Law Department of NCR Corporation.

3. I am responsible for patent formalities for the Financial Solutions Group of NCR Corporation.

4. I work with inventors (including Scott Hartop who is an inventor in the above-identified U.S. patent application, Serial No. 10/007,464) located in the United Kingdom to prepare patent applications for filing first in the U.K. Patent Office.

5. In October 2000, an Invention Disclosure entitled, " Self-Organising P2P Cascaded Streaming" was received from the inventor (See Exhibit A for copy of the Invention Disclosure submitted by the inventor).

6. On December 20, 2000, a priority patent application Serial No. 0031157.1 corresponding to the above-identified U.S. patent application Serial No. 10/007,464 was filed in the U.K. Patent Office.

7. On October 24, 2001 or thereabouts, a copy of the specification, claims, and drawings for priority patent application Serial No. 0031157.1 filed December 20, 2000 in the U.K. Patent Office was sent to the Dayton offices of the Intellectual Property Section of the Law Department for filing a corresponding patent application in the U.S. Patent Office.

8. On November 15, 2001 or thereabouts, a set of U.S. patent application papers (including copy of specification, claims, drawings, declaration of inventors, and assignment for inventors) corresponding to the above-identified U.S. patent application, Serial No. 10/007,464, was received by from the Dayton offices of the Intellectual Property Section of the Law Department for forwarding to inventor Hartop, the inventor in the above-identified U.S. patent application, to sign the declaration and the assignment. As of November 15, 2001, the aforesaid inventor was not in the employ of NCR Corporation.

9. On November 20, 2001, the U.S. patent application papers received on November 15, 2001 or thereabouts from the Dayton offices of the Intellectual Property Section of the Law Department were forwarded to inventor Hartop at his home address, which is "1 Hayes Crescent, London NW11 0DG", for execution by the inventor (see Exhibit B for a copy of the letter sent by Royal Mail Recorded Delivery to inventor Hartop on November 20, 2001).

10. Inventor Hartop has an Employment Agreement with NCR Corporation. The Employment Agreement obliges him, *inter alia*, "...whether during or after his employment with the Company, execute any document and do any acts necessary to enable the Company or its assigns to obtain patent protection in any part of the world in respect of any invention ..." (see Exhibit C for Intellectual Property portion of inventor Hartop's Employment Agreement).

11. As of today, March 28, 2002, the documents sent to inventor Hartop on November 20, 2001 have not been returned to me.

12. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

WHEREFORE, I hereby subscribe by name to the foregoing declaration.


Signed at London, United Kingdom this 28th day of March 2002.

  
Christine Sheppard

KINGDOM OF ENGLAND, CITY OF LONDON S.S.

on 28th March 2002

Signed in the presence of ELEANOR FRANCES ALISON FORAN, Notary Public of the City of London and England at large

  
E. F. ALISON FORAN  
Notary Public of London, England

(My Commission  
expires at death)



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Dayton, Ohio

NCR Docket No. 9595.00

Application of

**Scott Hartop**

Serial No. 10/007,464

Group Art Unit: 2152

Filed: December 5, 2001

Examiner: Unknown

For: **STREAMING OF DATA**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**DECLARATION OF MICHAEL CHAN**

Sir:

I, Michael Chan, being duly sworn, do hereby declare and state:

1. I am employed as a Senior Attorney in the Intellectual Property Section of the Law Department of NCR Corporation. I am located in the Dayton offices of the NCR Corporation.

2. I work with Christine Sheppard, Paralegal in the Intellectual Property Section of the Law Department, who is located in the London offices of the Intellectual Property Section of the Law Department of NCR Corporation.

3. I am responsible for preparing and prosecuting patent applications for the Financial Solutions Group of NCR Corporation.

4. On October 24, 2001 or thereabouts, an electronic copy of the specification, claims, and drawings for priority patent application Serial No. 0031157.1 filed December 20, 2000 in the U.K. Patent Office was received from the London offices of the Intellectual

Property Section of the Law Department. I used the electronic copy to prepare a corresponding U.S. patent application for filing in the U.S. Patent Office.

5. On November 12, 2001 or thereabouts, a set of U.S. patent application papers (including copy of specification, claims, drawings, declaration of inventors, and assignment for inventors) corresponding to the above-identified U.S. patent application, Serial No. 10/007,464, was sent from the Dayton offices to the London offices of the Intellectual Property Section of the Law Department for subsequent forwarding to inventor Scott Hartop to sign the declaration and the assignment.

6. On December 5, 2001, a copy of U.S. patent application papers (including copy of specification, claims, drawings, and an unsigned declaration) corresponding to the above-identified U.S. patent application, Serial No. 10/007,464, were filed in the U.S. Patent Office. The above-identified U.S. patent application claims priority of priority patent application Serial No. 0031157.1 filed December 20, 2000 in the U.K. Patent Office.

7. On January 9, 2002, a Notice to File Missing Parts of Application (Filing Date Granted) dated January 4, 2002 from the U.S. Patent Office was received in the Dayton offices of the Intellectual Property Section of the Law Department.

8. On January 15, 2002 or thereabouts, upon realizing that the U.S. patent application papers including executed declaration of inventors for the above-identified U.S. patent application, Serial No. 10/007,464 would most likely not be received in the Dayton Offices of the Intellectual Property Section of the Law Department for filing in the U.S. Patent Office, I started to prepare a Petition under 37 C.F.R. Section 1.47(b) along with its accompanying papers for filing in the U.S. Patent Office.



9. On April 2, 2002, a set of documents including Christine Sheppard's affidavit and its accompanying exhibits were received from the London offices of the Intellectual Property Section of the Law Department.

10. On April 2, 2002 a new "Combined Declaration and Power of Attorney" was prepared for execution by a representative of NCR Corporation who has sufficient proprietary interest in the above-identified application.

11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

WHEREFORE, I hereby subscribe my name to the foregoing declaration.

Signed at Dayton, Ohio this 3<sup>rd</sup> day of April 2002.



Michael Chan  
Reg. No. 33,663  
Attorney for Applicant(s)

NCR Corporation, Law Department, WHQ5E  
1700 S. Patterson Blvd., Dayton, OH 45479-0001  
Tel. No. 937-445-4956/Fax No. 937-445-3733

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B

International Intellectual Property Department

NCR Limited  
206 Marylebone Road  
London NW1 6LY  
Tel: 020 7723 7070  
Fax: 020 7725 8333

November 20, 2001

Scott Hartop  
1 Hayes Crescent  
London NW11 0DG

**RECORDED DELIVERY**

Dear Mr Hartop,

**Re: Application for Patent in US**  
**Entitled: 'STREAMING OF DATA'**  
**Our Ref: 9595**

Please find enclosed, a document of Assignment and a Combined Declaration & Power of Attorney for the above identified application. These documents are required by the United States Patent Office. I should be pleased if you would sign and date these documents where indicated, I noticed an error in the spelling of your name which I have amended, would you please initial the amendment (x3). When completed, please return the documents to this office, an addressed envelope is enclosed for your use.

Yours sincerely,

C Sheppard  
Enc: Declaration  
Assignment  
SAE

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APR 17 2002

**OFFICE OF PETITIONS**



LAW DEPARTMENT USE ONLY	
Docket No.	9595
Date Received	Oct 2000
Attorney	

## INVENTION DISCLOSURE RECORD

### PREPARATION & ROUTING INSTRUCTIONS

Complete and fill in every item. Write "none" or "unknown", if appropriate.

Use an additional blank page for any item where more space is needed.

Have your manager review and sign (items 10 and 11) before submitting to the NCR Law Department.

(1) Inventor(s)	Facility	Department	Phone Number
Scott Hartop	Knowledge Lab	Emerging Technology	0207 725 8967

(2) Title of Invention (Preferably 10 Words or less)

### Self-Organising P2P Cascaded Streaming

(4) Product, Project Name or Class Number	(5) Date Invention was First Conceived	(6) Actual or Anticipated Date of First Product Sale, Customer Availability, or Public Disclosure
	19/10/00	unknown

(7) Description of the Invention.

Please attach additional pages providing the following:

- Statement of problem solved by the invention - Briefly state the problem your invention solves, its purposes and advantages, and how it differs from prior designs that you are aware of.
- Description of the invention - Describe your invention in detail. Include and refer to sketches or diagrams and, if appropriate, attach documents such as previously prepared descriptions or specifications.
- Summary of invention - State what you regard at the present as the key inventive concept - i.e., the gist of your invention.

(8) Inventor Signature(s) (Each Person listed in item 1 above is an inventor and must sign and date.)

Signature of Inventor	Date	Signature of Inventor	Date
	25/10/00		
Signature of Inventor	Date	Signature of Inventor	Date

(9) Witness Signatures (Two Persons who are not inventors must read and understand this disclosure, and then sign and date.)

Signature of Witness	Date	Signature of Witness	Date
	25.10.00		25/10/2000

### FOR MANAGER USE ONLY

(10) Strategic Value of Patent Coverage (State what you regard as the strategic value to your business unit of having a patent for this invention - e.g., licensing revenue, preventing use by others, importance/breadth of the invention, etc.)

POTENTIALLY RE-DEFINES FUTURE OF RICH MEDIA & DATA DISTRIBUTION ONLINE & OVER AM NETWORK, WHICH IS A KEY GROWTH AREA OVER NEXT DECADE

(11) Reviewed and approved by

Signature of Manager	Date	Manager Name (Please Print)	Tentative Rating* (A,B,C,D or U)
		S EMMOTT	(A)

\*Rating of "A" through "D" indicate relative value, with "A" being highest and "D" being lowest.  
A rating of "U" indicates the value is unknown.

### **Summary of invention:**

A streaming architecture which uses a downloadable piece of software to link client machines in a continuous, dynamically self-organising peer-to-peer chain for the purpose of streaming any kind of data more efficiently and with higher, more reliable throughput. The invention also includes a client/server co-ordinating element to originate and monitor the chain, capable of handling appropriate content management functions.

### **Problems solved by the invention:**

High concurrency rates place bandwidth-intensive demands on servers dedicated to the streaming of any continuous data. This drastically compromises the quality and reliability of the end-user's experience and results in high hardware overheads for streaming service providers who need to maintain banks of specialised servers. This invention transfers streaming from client/server to a peer-to-peer architecture, exponentially reducing the processing power necessary to stream any continuous data and enabling far higher quality (ie more information) to be achieved within the existing internet infrastructure.

This invention also solves the potential 'bottle-neck effect' within the cascaded streaming path by dynamically self-organising the participating machines into the most efficient configuration at any given moment without interrupting the streamed information.

### **Description of the invention:**

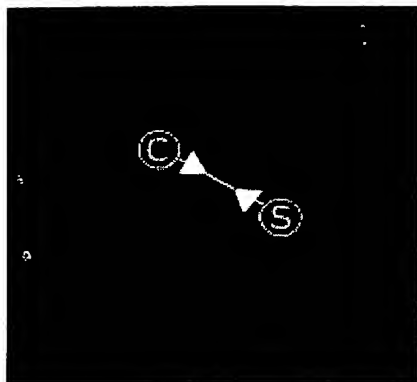
A consumer interested in receiving any streamed data (as an example say a live audio/video feed from a concert) first of all subscribes to the service. Having been granted membership they are able to download a piece of software to the networked machine they intend to use to interpret (ie decode) the streamed information. This software could be branded, customisable (skins etc...) and feature additional functionality, but its core jobs are to:

1. Communicate briefly with the co-ordinating server to be allocated a starting place in the chain of peer machines
2. Having dropped this server connection, establish a connection to the allocated IP address where the streaming signal can be received
3. Provide 'repeater' functionality such that it can both pass on the encoded signal to a subsequent P2P connection without interrupting it, but also simultaneously decode the incoming signal and relay to the appropriate playback device (depending on the playback device, interpreting the codec may not be necessary)
4. As a background function, monitor the connection speed of the machine (and provide updates to the machine in front) and compare its own rate with that of the machine following it in the chain.
5. As a result of learning that it is slower than the machine it precedes, manage the process of creating a second connection with a machine further down the line and seamlessly adjust its position in the streaming cascade without disturbing the relative position of the streamed information – and then terminate the previous 'bottle-necking' connection.
6. Log the streaming activity of the machine for corroboration with the co-ordinating server at a future time.

### **Examples:**

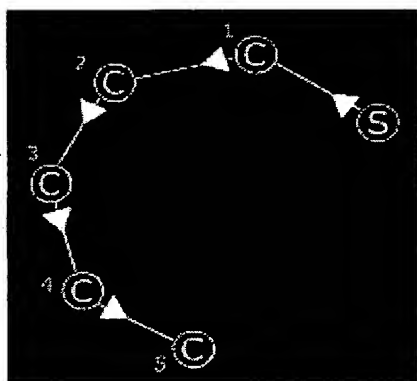
A domestic user launches the software, joins a peer-to-peer chain streaming a piece of live theatre (which is already in progress) and automatically enjoys optimum network performance – regardless of the physical ceiling of the connection – whilst monitoring the show on their preferred home entertainment device (PC/home cinema etc...). This user may already have paid for this content – or could be billed on quitting the chain based on the amount of content actually streamed by their machine.

## Diagram:



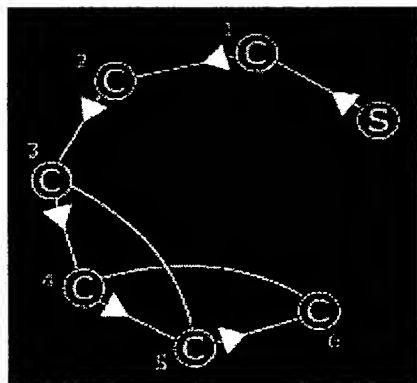
**Fig One**

A new client contacts the co-ordinating server in normal client/server architecture. The server processes the request according to subscription/membership etc... and once access is confirmed, passes the client the IP address of the last client it processed and added to the chain.



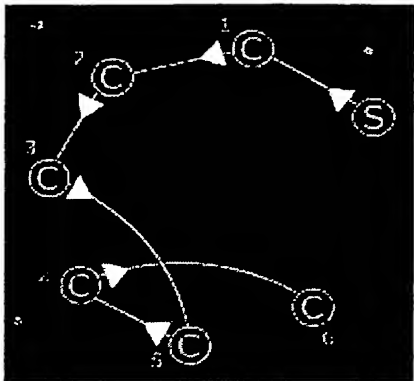
**Fig Two**

The new client drops the previous connection and switches to the allocated client (formerly the last in the chain) from which it can begin to receive the streamed data.



**Fig Three**

A further client joins the chain. The bandwidth monitoring function in the client software detects that Client 5 is faster than Client 4. Client 4 obtains Client 6's IP from Client 5 and forges a concurrent connection. Client 5 obtains Client 3's IP from Client 4 and again, connects simultaneously.



**Fig Four**

Having adjusted buffer times and synchronised timecode where necessary to ensure a contiguous stream, Client 5 reverses the direction of its connection to Client 4 (a new replacement connection may need to be established here to achieve this) and switches to processing the signal it is receiving from Client 3. Client 4 switches to processing the signal it is receiving from Client 5 and outputting to Client 6. The concurrent (but now unused) connections between Clients 3 & 4 and Clients 5 & 6 are dropped.

Without server co-ordination, the chain has optimised itself according to local rules. The last client in the chain can never be replaced via this self-organising process in order that the unconnected co-ordinating server handling requests to join the chain knows where to instruct newcomers to connect.

#### **Competitor Notes:**

**Kalepa Networks** - provider of Internet content delivery infrastructure, present information scarce but the co-founder was chief java evangelist at Sun - reports say that their staff includes neural nets experts. Company still in stealth mode.

**Static** - Static 1.0 is an operating system, server, and browser rolled into one, so your PC becomes a kind of Internet station. Features are multiplayer gaming, audio broadcasting, real-time server tracking and file sharing- to form a peer-to-peer community. Hard to tell but it reads as if the broadcasting still relies on "distributed servers", rather than daisy-chained clients - although their 'servers' are actually push-enabled clients, the model still uses multiple connections I think.

**Dot Cast** - An infrastructure company developing applications and hardware for multimedia networks.

**VTEL** - Audio visual company (they have a 'Reflector' application which links servers rather than clients to optimize use of available bandwidth)



6<sup>th</sup> July 2000

NCR Financial Solutions Group Limited  
206 Marylebone Road  
London NW1 6LY  
Tel: 020 7723 7070

Scott Hartop  
C/o 206 Marylebone Road  
London

Dear Scott,

I have pleasure in confirming the details of our offer for the following position.

Position: Research Programmer

Job Band: B1

Reporting to: Robin Mackay, Head of Emerging Technologies, Knowledge Lab

Organisation: NCR, Financial Solutions Group

Based at: 206 Marylebone Road Head office, London NW1 6LY

Start Date: TBD 14<sup>th</sup> Aug '00

Hours of Work: 9.00am - 5.00pm Monday - Friday. You may be required to work such reasonable hours as the needs of this particular position requires.

Annual Leave Entitlement: 21 days (pro rated from the actual start date and for part-time positions) in any one calendar year, in addition to 3 nominated Company days plus 8 Statutory days.

Remuneration: £30,000 per annum (there are no overtime payments attributable to this position).

Your next salary review will be in March 2001 subject to satisfactory performance.

You will be eligible to participate in the FSG Employee incentive plan which has an on target payment of 5% of base salary. However in practice, the award can range from 0% to 10%. This will be calculated and a payment made (if any) during the 1st quarter of 2001 and will be pro-rated for permanent employees length of service in 2000.

Company Car: In your capacity as **Research Programmer**, you are eligible for a Company car, Group B. This car may be used within reason for private journeys subject to conditions and in accordance with instructions issued from time to time by the Company. You should acquaint yourself with the terms under which the car is insured, and should take care to ensure that it is not used in circumstances outside these terms. You must also ensure that you are eligible to drive within the UK subject to requirements set by the Driving Vehicle Licensing Authority.

The vehicle provided may not necessarily be new should there be one readily available from within the fleet.

At the level of the above position, the choice of car is based on a benchmark lease value of £319 per month. Alternatively you may opt to have a car allowance equating to £3,700 per annum subject to taxation, which will be paid in 12 monthly installments directly into your bank account and will form part of your salary payment.

**Medical Insurance**

**Cover:**

The Company will subscribe for Medical Insurance coverage for you (and your spouse/partner/family). Full details will be sent to you under separate cover.

**Flexible**

**Compensation:**

FSG's "flexible compensation" gives you the opportunity to tailor your pay and benefits to match your individual needs and preferences. The total value of all elements of your compensation will remain the same, but you will have the opportunity to influence the range of benefits you receive. Full details of the plan will be sent to you under separate cover.

**Pension Plan:**

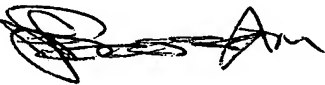
On joining the Company you will be eligible to become a member of NCR Scotland Pension Plan, which includes 1) a Final Salary Plan, 2) The Money Purchase Plan, and 3) The Death Benefits Plan. If you elect to be part of the plan, you will contribute a minimum of 3% (and up to 5%) of your pay to the Money Purchase Plan. NCR will also pay into the fund at a rate of 50% of the level at which you choose to pay. You will receive more details under separate cover.

**Dental Plan:**


On joining the Company you will also be eligible to receive National Dental Plan coverage. Further details will be issued to you upon commencement of employment.

If you have any questions concerning the details of this appointment, please do not hesitate to contact a member of the Human Resources Team telephone 020 7725 8342.

Yours sincerely

P.P. 

Sue Moyce  
Human Resources Department  
Financial Solutions Group

  
\_\_\_\_\_  
Agreed and Accepted  
Scott Hartop

7/7/00  
Date

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Financial Solutions Group Limited

## STATEMENT OF TERMS AND CONDITIONS OF EMPLOYMENT

1. **EMPLOYER:** NCR Financial Solutions Group Limited, 206 Marylebone Road, London NW1 6LY (The Company)
2. **EMPLOYEE:** Scott Hartop
3. **DEPARTMENT:** Human Resources
4. **DATE OF ISSUE:** 13 June 2000

5. **CONTINUITY:**  
Your employment with the Company commenced on 5<sup>th</sup> July 1999. *January 5<sup>th</sup> July*

### 6. JOB TITLE

You are employed as a WCS Marcoms Media Developer, OE GST on a full time and exclusive basis. This is not a job description and may be changed from time to time. You will be informed in writing of any change. Your duties are such as may be assigned to you by the Company from time to time and you may be required to observe all reasonable rules and regulations adopted by the Company in connection with the operation of its business and to carry out to the best of your ability all instructions given by the Company.

The Company shall be entitled to direct that you perform no duties and to direct that you shall not enter or remain on any (or any specified) premises of the Company and any such direction may be given subject to any condition with the Company in its discretion may determine.

### 7. HOURS

Your normal working week is 35 hours, Monday to Friday, 9.00am to 5.00pm, with a lunch period of 1 hour. You may be required to work such hours as are reasonably necessary for the proper performance of your duties, for the avoidance of doubt you will not be paid overtime for such additional hours.

### 8. REMUNERATION

Your salary is £25,000 (Twenty Five Thousand Pounds) per annum, paid monthly ("Salary") paid by Bankers Order on the 16<sup>th</sup> of each month for the current calendar month subject to adjustment for any lost time or National Insurance deductions while on sickness absence, in the previous month, or for any unauthorised absence.

The Company shall be entitled pursuant to the Employment Rights Act 1996, at any time during the employment and upon its termination (howsoever arising) to deduct from the Salary and/or any other sums due to you, any sums owed by you to the Company.

### 9. HOLIDAYS

In addition to Statutory Public Holidays, paid holiday entitlement is calculated according to your length of service during the year. Subject to the approval of your manager this may be taken in advance at any time during the holiday year (1 January – 31 December), however, up to 20% of your entitlement may be carried over to the subsequent year, but must be taken by 31 March. On joining the Company, holiday entitlement for the first year of service is as follows:

#### MONTH OF JOINING – DAYS OF HOLIDAY ENTITLEMENT (First Year)

January	21 days	April	16 days	July	11 days	October	6 days
February	19 days	May	14 days	August	9 days	November	4 days
March	17 days	June	12 days	September	7 days	December	2 days

This assumes that the employee commences on the first working day of the month. Staff joining at the middle a month or later are not entitled to holiday for that month.

Additional entitlement is given for service up to 25 years as shown below:

1 to 5 years service	21 days holiday per annum	Over 16 to 20 years service	24 days holiday per annum
Over 5 to 10 years service	22 days holiday per annum	20+ years service	25 days holiday per annum
Over 10 to 15 years service	23 days holiday per annum		

*N.B. Previous broken service with the Company does not qualify for extra holidays for service.*

This assumes that the employee commences on the first working day of the month. Staff joining at the middle a month or later are not entitled to holiday for that month.

If and when you leave the Company and you have exceeded your holiday entitlement, your final pay will be reduced by the appropriate amount.

### 10. SICKNESS AND INJURY BENEFIT

At The Company's discretion, non-obligatory payments will be made to you during sickness absence or injury. In order to be considered for company sick pay the following procedures must be complied with:

- a) Inform your manager immediately by telephone.
- b) Complete an Employee Statement of Absence From Work.
- c) Provide a medical certificate if your illness lasts more than 7 days (including Saturday, Sundays and Statutory Public Holidays).
- d) Send a medical certificate for each subsequent week of continued illness.

All sickness payments by the Company take into account Statutory Sick Pay (S.S.P.) If you are excluded from S.S.P. but eligible for National Insurance Benefit (N.I.B.): NCR will deduct the standard rate of N.I.B. from your pay. (In the case of married women the benefit deducted will be that which they would receive if they were making full contributions). Payments will be based on a service-related scale. Up to 3 months service



Financial Solutions Group Limited

## STATEMENT OF TERMS AND CONDITIONS OF EMPLOYMENT

allows a maximum payment of 2 weeks basic pay. Between 3 – 6 months service allows a maximum of 4 weeks basic pay. After 6 months services payments are related to length of service. Any entitlement in respect of continuous absence through sickness or injury will be subject to frequent review. A Personal Accident Insurance Scheme covers employees in the event of personal injury whilst on Company business other than at their normal place of work or travelling between home and their normal place of work.

### 11. PENSION PLAN MEMBERSHIP

Membership to the NCR Scotland Pension Plan is optional for all full-time and part-time permanent employees provided you are not within five years of normal pension age. Full details of the Pension Plan are contained in the Pension Plan explanatory document.

### 12. CONFIDENTIAL INFORMATION

You will not, during your employment with the Company or at any time thereafter, without written permission of the Company, disclose to any person outside the Company, or to any person within the Company other than a person whose province it is to know the same, any information relating to the Company's business which is of a confidential nature or disclosure of which may damage the interests of the Company. Also you will not use for any purpose or for purposes other than those of the Company, any information which you may acquire relating to the Company's business. On termination of your employment you will deliver to the Company on your last working day (without keeping any copies) any documents or other media relating to the business of the Company.

### 13. OUTSIDE SUBMISSIONS

It is most important that the Company shall not be placed in a position of confidential trust or relationship with respect to any unsolicited disclosure of information received from anyone outside the Company. In order that all matters relating to outside submission of information may be handled in a legally correct manner, any idea or suggestion submitted to you by a customer or other third party concerning technical developments or products including software, should be forwarded by you unanswered to International Patents Department, Head Office.

### 14. INVENTIONS ETC.:

You will as soon as reasonably possible disclose confidentially to the Company and to no one else full particulars of all inventions, improvements and designs made or discovered by you, whether alone or jointly, whilst in the service of the Company, which relate to or are capable of use in connection with any of the products made, sold or hired by the Company or the manufacturer thereof, or any of the Company's business processes.

The rights as between the Company and yourself in any invention as specified above, shall be as set out in the Patents Act 1977.

In respect of any invention as specified above, unless it has been established that such invention does not belong to the Company, the Company has absolute discretion as to whether any application for a patent or other protection shall be made on such invention, and has the right to abandon any such application and any patent granted thereon.

The Company shall pay a monetary award to you in respect of any invention belonging to the Company which has been made by you, either alone or jointly, and in respect of which a patent application has been filed. Such award shall be in accordance with the Invention Recognition and Incentive Plan as set out in the Corporate Patent Policy.

In consideration of your salary or wages, any industrial property rights other than inventions arising from work done by you in the course of your duties as an employee of the Company and which relate to the business of the Company shall belong exclusively to the Company. Such industrial property rights include, but are not limited, to copyright, industrial and artistic designs, trade marks, trade secrets, know-how and other confidential information.

You will at the request and cost of the Company, whether during or after you employment with the Company, execute any document and do any acts necessary to enable the Company or its assigns to obtain patent protection in any part of the world in respect of any invention as specified in paragraph a) above, unless it has been established that such invention does not belong to the Company, and to obtain registered design, copyright or other protection in respect of industrial property rights as specified in paragraph e) above.

### 15. DISCIPLINARY AND GRIEVANCE PROCEDURES

The Company has formulated and operates disciplinary and grievance procedures. These procedures, which do not form part of your contract of employment, may be obtained from your HR Consultant or the Compensation and Benefits Manager, FSG.

### 16. PERFORMANCE ISSUES

The Company operates a procedure to deal with performance issues and to help and encourage other employees to achieve and maintain acceptable stands of job performance. This procedure, which does not form part of your contract of employment, may be obtained either from your HR Consultant or from the Compensation and Benefits Manager, FSG.

### 17. SUSPENSION

During your employment, the Company may suspend you from duty by notice in writing on full remuneration at any time and for such period as the Company thinks fit.

### 18. OTHER BUSINESS ACTIVITY

You will not engage in any other business activity for deal with any way with Company products or any similar products, except in the normal and proper course of your employment with the Company.

You will not either directly or indirectly be engaged in any other trade, profession or business that could in any way represent a conflict of interests with those of the Company. Where there is any uncertainty or possibility that a conflict of interest might arise, the prior written approval of the Company must be obtained before any such activity is entered into. A written application should be made to the VP HR FSG, who will arrange for your request to be considered.

It is strictly prohibited to receive any compensation (commission, prize, or whatever form it may take) from a third party (Leasing Company,

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OFFICE OF PETITION



Financial Solutions Group Limited

## STATEMENT OF TERMS AND CONDITIONS OF EMPLOYMENT

outside Software House, etc.) for giving them NCR business of any kind generated in the course of our normal selling activities. Violations of this rule will be subject to disciplinary action, including dismissal.

### 19. TERMINATION

If you wish to resign from the Company you must give 4 weeks notice in writing irrespective of your length of service. In certain exceptional circumstances the Company may waive this requirement.

Should the Company have reason to terminate your employment, you are entitled to receive notice:

#### SERVICE

#### NOTICE

More than one week but less than 5 years

4 weeks

More than 5 years but less than 6 years

5 weeks

Thereafter for each additional year of service an additional week's notice to a maximum of 12 weeks for 12 or more year's continuous service.

In cases of gross misconduct or dishonesty, it may be necessary for the Company to terminate your employment without notice or payment in lieu of notice.

### 20. CHANGES

Changes in the terms and conditions of your employment will be confirmed to you either by letter, general notice or by the re-issue or amendment of this document or any accompanying schedules.

### 21. BASIS OF AGREEMENT

These terms and conditions of employment, together with the letter of offer and the Company's rules and procedures formulate the basis of the agreement between you and the Company.

#### AUTHORISATION:

Signed on behalf of the Company

Name: Sue Meyers Position: GB Manager

#### ACKNOWLEDGEMENT:

Signed: [Signature] Date: 21/6/00

ISSUED BY NCR FINANCIAL SOLUTIONS GROUP LIMITED HUMAN RESOURCES